

SEQUENCE LISTING

<110> Birger Sorensen

<120> HIV Peptides, antigens, vaccine compositions, immunoassay kit and a method of detecting antibodies induced by HIV.

<130> 2833.4001LO

<140> TBA

<141> 2003-09-11

<150> US 09/674,674

<151> 2001-07-25

<160> 49

<170> PatentIn Ver. 3.1

<210> 1

<211> 20

<212> PRT

<213> artificial sequence

<220>

<223> synthetic peptide

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<223> Xaa in position 2 is Ala, Gly, Ser or Arg

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<221> VARIANT

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<223> Xaa in position 6 is Gly, Ala, Lys, Arg, Gln or Glu

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<223> Xaa in position 9 is Leu or Ile

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<223> Xaa in position 14 is Thr, Ser or Val

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<222> 16

<223> disulfide, optional

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<222> 17

<223> Xaa in position 17 is Gln or Leu

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<221> VARIANT

<222> 18

<223> Xaa in position 18 is Gly, Glu or Arg

<220>

<221> VARIANT

<222> 20

<223> Xaa in position 20 is Gly or Arg

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Xaa Xaa Xaa Xaa Xaa Xaa Ala Xaa Xaa Gln Thr Pro Trp Xaa Xaa Xaa
1 5 10 15

Xaa Xaa Val Xaa
20

<210> 2

<211> 20

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 <222> 16
 <223> disulfide, optional, can form a homodimer with another SEQ ID NO 2 or a heterodimer with SEQ ID NO 5

<400> 2
 Lys Ala Leu Gly Pro Gly Ala Thr Leu Gln Thr Pro Trp Thr Ala Cys
 1 5 10 15

Gln Gly Val Gly
 20

<210> 3
 <211> 20
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 <213> artificial sequence

<220>

<223> synthetic peptide

<400> 3
 Arg Ala Leu Gly Pro Ala Ala Thr Leu Gln Thr Pro Trp Thr Ala Ser
 1 5 10 15

Leu Gly Val Gly
 20

<210> 4
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 <223> Xaa in position 2 is Trp, Gly, Lys or Arg

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<223> Xaa in position 3 is Ile, Leu, Val or Met
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 <223> Xaa in position 5 is Leu, Met, Val or Pro
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 <223> Xaa in position 12 is Gly or missing
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 <223> Xaa in position 13 is Gly or missing
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 <223> Xaa in position 20 is Thr, Val, Ile, Ser or Ala
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 <223> Xaa in position 21 is Ser, Gly or Thr
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<221> VARIANT
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<223> Xaa in position 24 is Asp, Glu, Cys or Gly

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<222> 24
<223> disulfide, optional

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<400> 4
Xaa Xaa Xaa Xaa Xaa Gly Leu Asn Pro Leu Val Xaa Xaa Xaa Xaa Xaa
1 5 10 15
Tyr Xaa Pro Xaa Xaa Ile Leu Xaa Xaa
20 25

<210> 5
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<223> synthetic peptide

<220>

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<223> disulfide, optional, can form homodimer with another SEQ ID NO 5 or a heterodimer with SEQ ID NO 2

<400> 5
Trp Ile Ile Pro Gly Leu Asn Pro Leu Val Gly Gly Gly Lys Leu Tyr
1 5 10 15
Ser Pro Thr Ser Ile Leu Cys Gly
20

<210> 6
<211> 24
<212> PRT
<213> artificial sequence

<220>

<223> synthetic peptide

<400> 6
Arg Trp Leu Leu Leu Gly Leu Asn Pro Leu Val Gly Gly Gly Arg Leu
1 5 10 15
Tyr Ser Pro Thr Ser Ile Leu Gly

20

<210> 7
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<223> synthetic peptide

<400> 7
Lys Ile Leu Leu Gly Leu Asn Pro Leu Val Gly Gly Gly Arg Leu Tyr
1 5 10 15

Ser Pro Thr Ser Ile Leu Gly
20

<210> 8
<211> 23
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<400> 8
Arg Leu Leu Leu Gly Leu Asn Pro Leu Val Gly Gly Gly Arg Leu Tyr
1 5 10 15

Ser Pro Thr Thr Ile Leu Gly
20

<210> 9
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<223> Xaa in position 2 is Asn, Ala or Lys

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<221> VARIANT
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<223> Xaa in position 3 is Pro, Gln, Gly, Ile or Leu

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<221> VARIANT

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 <223> xaa in position 8 is Gly or Lys
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 <223> xaa in position 9 is Glu, Asp, Lys, Phe or Thr
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 <223> xaa in position 16 is Arg or missing
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 <223> xaa in position 17 is Asp, Arg, Trp, Ala or missing
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 <223> Xaa in position 19 is Tyr or missing
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 <222> 26
 <223> Xaa in position 26 is Gly or Cys
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 Xaa Xaa Xaa Pro Ile Pro Xaa Xaa Xaa Xaa Xaa Xaa Gly Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25
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<222> 24

<223> disulfide, optional

<400> 10

Arg Asn Ile Pro Ile Pro Val Gly Asp Ile Tyr Gly Gly Gly Asp Ile
1 5 10 15

Tyr Lys Arg Trp Gln Ala Leu Cys Leu
20 25

<210> 11

<211> 26

<212> PRT

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<400> 11

Arg Ala Ile Pro Ile Pro Ala Gly Thr Leu Leu Ser Gly Gly Gly Arg
1 5 10 15

Ala Ile Tyr Lys Arg Trp Ala Ile Leu Gly
20 25

<210> 12

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<400> 12

Ala Leu Pro Ile Pro Ala Gly Phe Ile Tyr Gly Gly Gly Arg Ile Tyr
1 5 10 15

Lys Arg Trp Gln Ala Leu Gly
20

<210> 13

<211> 22

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<223> synthetic peptide

<400> 13

Lys Ile Pro Ile Pro Val Gly Phe Ile Gly Gly Gly Trp Ile Tyr Lys
1 5 10 15

Arg Trp Ala Ile Leu Gly
20

<210> 14
<211> 24
<212> PRT
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<223> synthetic peptide

<400> 14
Lys Ile Pro Ile Pro Val Gly Thr Leu Leu Ser Gly Gly Gly Arg Ile
1 5 10 15

Tyr Lys Arg Trp Ala Ile Leu Gly
20

<210> 15
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 <223> disulfide, optional
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<221> VARIANT
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 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30

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 <223> Xaa is Nle

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 <222> 24
 <223> disulfide, optional

 <400> 16
 Lys Phe Ile Ile Pro Xaa Phe Ser Ala Leu Gly Gly Ala Ile Ser Tyr
 1 5 10 15
 Asp Leu Asn Thr Xaa Leu Asn Cys Ile
 20 25

 <210> 17
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<222> 26
<223> disulfide, optional

<400> 17
Lys Phe Ile Ile Pro Xaa Phe Ser Ala Leu Ser Gly Gly Gly Ala Ile
1 5 10 15

Ser Tyr Asp Leu Asn Thr Phe Leu Asn Cys Ile Gly
20 25

<210> 18
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<223> Xaa is Nle

<400> 18
Arg Phe Ile Ile Pro Xaa Phe Thr Ala Leu Ser Gly Gly Arg Arg Ala
1 5 10 15

Leu Leu Tyr Gly Ala Thr Pro Tyr Ala Ile Gly
20 25

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Lys Ile Ile Pro Xaa Phe Ser Ala Leu Gly Gly Gly Arg Leu Leu Tyr
1 5 10 15

Gly Ala Thr Pro Tyr Ala Ile Gly
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Arg Ile Ile Pro Xaa Phe Thr Ala Leu Ser Gly Gly Gly Arg Leu Leu
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Tyr Gly Ala Thr Pro Tyr Ala Ile Gly
20 25

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Asn Ile Pro Ile Pro Val Gly Asp Ile Tyr Gly Gly Gly Asp Ile Tyr
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Lys Arg Tyr Gln Ala Leu Cys Leu
20

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<221> VARIANT

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<223> Xaa is Nle

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<222> 23

<223> disulfide, optional

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Trp Ile Ile Pro Xaa Phe Ser Ala Leu Gly Gly Ala Ile Ser Tyr Asp
1 5 10 15

Leu Asn Thr Xaa Leu Asn Cys Ile
20

<210> 26

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<212> PRT

<213> Homo sapiens

<400> 26

Lys Ala Leu Gly Pro Gly Ala Thr Leu Glu Glu Met Met Thr Ala Cys
1 5 10 15

Gln Gly Val Gly
20

<210> 27

<211> 20

<212> PRT

<213> Homo sapiens

<400> 27

Arg Arg Met Arg Thr Lys Ala Ser Ile Lys Asp Met Leu Ser Ser Ser
1 5 10 15

Gln Arg Val Arg
20

<210> 28

<211> 20

<212> PRT

<213> Homo sapiens

<400> 28

Lys Gly Leu Gly Val Arg Ala Thr Leu Glu Glu Met Met Val Ala Cys
1 5 10 15

Gln Gly Val Gly
20

<210> 29

<211> 20

<212> PRT

<213> Homo sapiens

<400> 29

Lys Ser Leu Gly Ala Ala Ala Thr Leu Glu Glu Met Met Thr Ala Cys
1 5 10 15

Gln Gly Val Gly
20

<210> 30
<211> 20
<212> PRT
<213> Homo sapiens

<400> 30
Lys Ala Leu Gly Ser Glu Ala Thr Leu Glu Glu Met Met Thr Ala Cys
1 5 10 15

Gln Gly Val Gly
20

<210> 31
<211> 20
<212> PRT
<213> Homo sapiens

<400> 31
Lys Ala Leu Gly Gln Gln Ala Thr Leu Glu Glu Met Met Thr Ala Cys
1 5 10 15

Gln Gly Val Gly
20

<210> 32
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<220>

<221> DISULFID
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<223> disulfide

<400> 32
Ala Asn Pro Asp Cys Lys Gln Ile Leu Lys Ser leu Gly Pro Gly Ala
1 5 10 15

Thr Leu Gln Gln Xaa Xaa Thr Ala Cys Gln Gly Val Gly
20 25

<210> 33
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<221> DISULFID
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Leu Ile Trp Gly Ala Thr Cys Gln Glu His Xaa Thr Ala Cys Gln Gly
1 5 10 15

Val Gly

<210> 34
<211> 21
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<400> 34
Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile Val Arg Met Tyr Ser Pro
1 5 10 15

Thr Ser Ile Leu Asp
20

<210> 35
<211> 21
<212> PRT
<213> Homo sapiens

<400> 35
Lys Gly Val Val Met Gly Leu Asn Lys Met Val Lys Met Tyr Cys Pro
1 5 10 15

Val Gly Ile Leu Glu
20

<210> 36
<211> 21
<212> PRT

<213> Homo sapiens

<400> 36

Lys Trp Met Ile Val Gly Leu Asn Lys Val Val Arg Met Tyr Gln Pro
1 5 10 15

Ile Ser Ile Leu Gly
20

<210> 37

<211> 21

<212> PRT

<213> Homo sapiens

<400> 37

Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile Val Arg Met Tyr Ser Pro
1 5 10 15

Ser Ser Ile Leu Asp
20

<210> 38

<211> 21

<212> PRT

<213> Homo sapiens

<400> 38

Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile Val Arg Met Tyr Ser Pro
1 5 10 15

Ala Ser Ile Leu Asp
20

<210> 39

<211> 19

<212> PRT

<213> Homo sapiens

<400> 39

Asn Asn Pro Pro Ile Pro Val Gly Glu Ile Tyr Lys Arg Trp Ile Ile
1 5 10 15

Leu Gly Leu

<210> 40

<211> 19

<212> PRT

<213> Homo sapiens

<400> 40

Ser Asn Gln Ala Val Pro Val Lys Asp Met Leu Arg Lys Gly Met Val
1 5 10 15

Met Gly Leu

<210> 41

<211> 19

<212> PRT

<213> Homo sapiens

<400> 41

Gly Asn Gly Ser Asn Pro Val Gly Lys Val Tyr Lys Asp Trp Val Ile
1 5 10 15

Val Gly Leu

<210> 42
<211> 19
<212> PRT
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<400> 42
His Asn Pro Gly Thr Pro Val Gly Glu Ile Tyr Lys Arg Trp Ile Ile
1 5 10 15

Leu Gly Leu

<210> 43
<211> 19
<212> PRT
<213> Homo sapiens

<400> 43
Ala Asn Pro Pro Ile Pro Val Gly Glu Ile Tyr Lys Arg Trp Ile Ile
1 5 10 15

Leu Gly Leu

<210> 44
<211> 19
<212> PRT
<213> Homo sapiens

<400> 44
Pro Asn Pro Pro Ile Pro Val Gly Glu Ile Tyr Lys Arg Trp Ile Ile
1 5 10 15

Leu Gly Leu

<210> 45
<211> 21
<212> PRT
<213> Homo sapiens

<400> 45
Pro Glu Val Ile Pro Met Phe Ser Ala Leu Ser Glu Gly Ala Thr Pro
1 5 10 15

Gln Asp Leu Asn Thr
20

<210> 46
<211> 21
<212> PRT
<213> Homo sapiens

<400> 46
Pro Arg Ile Thr Thr Thr Leu Thr Glu Leu Ala Asp Gly Ala Ile Ser
1 5 10 15

Tyr Asn Ile Tyr Met
20

<210> 47
<211> 21
<212> PRT
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<400> 47
Pro Glu Leu Asn Pro Met Phe Ala Leu Leu Ser Glu Gly Ala Val Pro
1 5 10 15

His Asp Val Asn Ile
20

<210> 48
<211> 21
<212> PRT
<213> Homo sapiens

<400> 48
Pro Glu Val Ile Pro Met Phe Met Ala Leu Ser Glu Gly Ala Leu Pro
1 5 10 15

Gln Asp Leu Asn Ala
20

<210> 49
<211> 21
<212> PRT
<213> Homo sapiens

<400> 49
Pro Glu Val Ile Pro Met Phe Ser Ala Leu Ser Glu Gly Ala Thr Pro
1 5 10 15

Gln Asp Leu Asn Val
20